

On a New Subspecies of *Zygaena* (*Agrumenia**) *ganymedes* Herrich-Schäffer (Lep., Zygaenidae)

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Herrich-Schäffer originally illustrated *Zygaena ganymedes* Herrich-Schäffer in 1851 in the *Systematische Bearbeitung der Schmetterlinge von Europa* and described the species a year later in 1852 without quoting the exact locality. I have already written (Reiss, 1933a: 205) on *Z. ganymedes* and suggested that Zeitun in the Taurus mountains of Turkey should be taken as the type locality. On the coloured plate I figured a ♂ and ♀ from Zeitun. These specimens were also illustrated on the black and white plate where, in addition, a specimen labelled Armenia was figured. Later the same year (Reiss, 1933b: 267) I referred all populations from the Taurus to the nominate form of *Zygaena ganymedes* Herrich-Schäffer. Tremewan (1966: 31, pl. 1, fig. 1) designated a ♂ (26 mm. wing span), labelled Asia minor, as a lectotype of *Z. ganymedes* Herrich-Schäffer and illustrated the specimen together with the genitalia.

A series of 5♂, 2♀ labelled: Türkei, Ak-Sehir, Sultan Dag, 15.vi.-15.vii.1963, leg. Leinfest, shows little variation. Until now, the species was unrecorded from this locality in the central region of Turkey. The specimens are smaller than *ganymedes* from Zeitun and have a wingspan of 24-26 mm. in the ♂ and 25 and 25.5 mm. in the ♀. In 1♂, 1♀, the red and connected forewing spots 1, 2, 2a, that reach the inner margin, are enlarged, spot 1 is separated from spot 3 only by the yellow edging. The antennae are blue-black, likewise the frons and the palpi. The patagia and tegulae are red, the latter mixed with yellow and in 2♂ with black scaling. On the abdomen, the last segment is blue-black, the remaining segments are red dorsally, but are red ventrally only on two to three segments. In 2♂ the red is even somewhat reduced on the upperside of the abdomen. The legs are mostly bone-yellow. Compared with *ganymedes* from Zeitun, the red coloration is less mixed with vermilion, the yellow edging of the forewing spots is stronger, also the red spots 5 and 6 are distinctly surrounded with yellow. While in *ganymedes* from Zeitun the margins of the forewings are blue-black in the specimens from Sultan Dag the edges of the wings are yellow and in 2♂ and 2♀ the normally blue-black inner margin is likewise yellow. The fringes of the forewings are yellow, those of the hindwings are dark. On the underside of the forewings the coloration is duller, the forewing spots and their yellow edging are visible, between the spots the ground colour is dusted with yellowish scaling, the apex and the termen are blue-black.

We name this race **sultana** n. subsp. Holotype ♂, Türkei, Aksehir, Sultan Dag, 15.vi.-15.vii.1963, leg. Leinfest, in coll. H. Reiss; allotype ♀, with the same data, in coll. A. Schulte; 4♂, 1♀ Paratypes with the same data in coll. H. Reiss and coll. A. Schulte.

The holotype ♂ and allotype ♀ are figured on the accompanying plate. These figures show the form and length of the antennae, the wing shape, the size and shape of the forewing spots and the hindwing border.

We are greatly indebted to Dr. Günther Reiss for preparing the original photographs reproduced on the plate.

*The placing of this species in the subgenus *Agrumenia* Hübner follows Reiss (1958).

REFERENCES

- Herrich-Schäffer, G. A. W. 1851. Systematische Bearbeitung der Schmetterlinge von Europa, **2**, pl. 14, figs. 100, 101.
- . 1852. *ibidem*, **6**: 45.
- Reiss, H. 1933a. Versuch einer Monographie über die Gruppen der *Zygaena fraxini* Mén. und *olivieri* Boisd. (Lep.). *Ent. Rdsch.*, **50**: 205, black and white and coloured plates.
- . 1933b. in Seitz, *Die Gross-Schmetterlinge der Erde*, Supplement, **2**: 267.
- . 1958. Versuch der Darstellung von Entwicklungsreihen bei der Gattung *Zygaena* F. (Lep.). *Z. wien. ent. Ges.*, **43**: 157-161, with sketches.
- Tremewan, W. G. 1966. On some Type Specimens of the Genus *Zygaena* Fabricius (Lep., Zygaenidae) in the British Museum (Natural History). *Entomologist's Rec. J. Var.*, **78**: 31, figs. 1, 2, pl. 1, fig. 1.

Dioryctria abietella Denis & Schiffermüller and *D. abietella* f. *mutatella* Fuchs. (Lep. Phycitidae)

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It appears that all British specimens supposed to be *Dioryctria splendidella* H.-S. (a synonym of *D. sylvestrella* Ratzeburg) which have been examined, have proved to be *D. abietella* D. & Schiff. Before reading Mr. M. Shaffer's paper (*Ent. Gazette* **17**: 20) I forwarded to him some of my larger, well marked specimens, some with prominent brown patches, which I thought were *splendidella*. Mr. Shaffer has kindly compared them with other material at the British Museum (Natural History) with the result that he has determined these larger specimens as *D. abietella*. He goes on to emphasise that the smaller specimens which in the past have been called *abietella* are referable to the form *mutatella* Fuchs.

This species does not appear in the local list of moths found in the Dover and Deal district of Kent, prepared by the late B. E. Embry and myself in 1949, as we could not find any records of its occurrence at that time. It has, however, been recorded from Kent (Barrett, *British Lepidoptera* **IX**:415).

The first record in the Dover area appears to be in 1955, in which year 15 came to my mercury vapour light trap—one on 9th July, 13 on 29th July, and one on 23rd August. This sudden appearance seems to suggest migration. The species does not occur regularly here, although the food plant, *Pinus sylvestris* is close by. The only other specimens I have recorded locally are one on the 22nd August 1959, and one on 20th June 1966.

Single specimens have been taken by Mr. D. G. Marsh, at Ickham, near Canterbury, on 31st July 1956, and 29th August 1961. If all recorded specimens refer to this species, it occurred in the Ashford, Kent, area in 1954, 1955, 1956 and 1957 (E. Scott annotated list of *Lepidoptera* 1964: 59) and I understand it has turned up fairly regularly in the Folkestone area (A. M. Morley, in litt.).

Specimens from Hailsham, Sussex, formerly in the collection of the late B. E. Embry, which I now have, appear to be smaller, and referable to form *mutatella* Fuchs., as indeed, are the majority of those taken by me in Rothiemurchus Forest, Inverness-shire, in July 1959.

My thanks are due to Mr. Shaffer for his help and for examining some two dozen specimens which I sent to him.

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